REMARKS/ARGUMENTS

Claims 1-3, 9-12, 17-19, 38, 43, 46, 49, 52, and 55-64 are pending in the application. Reexamination and reconsideration of the claims are requested in view of the following remarks.

The Rejection of the Claims Under 35 U.S.C. §103 Should Be Withdrawn

Claims 1-3, 9-12, 17-19, 38, 43, 46, 49, 52, and 55-64 were rejected under 35 USC §103(a) over Michaels *et al.* (U.S. Patent No. 5,554,534 (the '534 patent)). This rejection is respectfully traversed.

The '534 patent is drawn to particular isolates of *Bacillus thuringiensis* (*Bt*) that have activity against scarab pests. The Examiner has indicated that the nucleotide sequence taught by the '534 patent has 85.1% identity to SEQ ID NO:1. Based on this identity, the Examiner has indicated that it would have been obvious to one of ordinary skill in the art to modify the nucleic acid taught by the '534 patent to produce the claimed nucleic acids.

The Examiner's rejection seems to stem from the recent *Ex parte Kubin* opinion by the Board of Patent Appeals and Interferences (BPAI). In *Kubin*, the BPAI found that claims drawn to an isolated nucleic acid molecule comprising a polynucleotide encoding a polypeptide at least 80% identical to amino acids 22-221 of SEQ ID NO:2, wherein the polypeptide binds CD48 to be obvious over the combined teachings of Valiante *et al.*, U.S. Patent No. 5,688690; Sambrook *et al.*, *Molecular Cloning: A Laboratory* Manual, 2nd Edition, 2.43-2.84 (Cold Spring Harbor, N.Y. 1989); and Porunelloor Mathew *et al.*, *Cloning and Characterization of the 2B4 Gene Encoding a Molecule Associated with Non-MHC-Restricted Killing Mediated by Activated Natural Killer Cells and T Cells,* 151 J. Immunol., 5328-5337 (1993).

In *Kubin*, the BPAI noted that the Valiante reference provides a monoclonal antibody C1.7 which binds p38 protein. Further, Valiante provides a prophetic example teaching how to isolate the cDNA of p38 by screening the protein expression in a cell transfected with a cDNA library and cloning the corresponding cDNA into a plasmid for sequencing. The BPAI further

noted that the DNA and protein sequences of p38 could have been obtained by methodologies, such as those taught by Sambrook. In fact, the BPAI noted that Appellants employed methods such as those outlined in Sambrook. That is, Appellants isolated the sequence from a cDNA library using monoclonal antibody C1.7 as disclosed by Valiante.

The BPAI reasoned that the disclosure of the polypeptide p38, and a detailed method of isolating its DNA, including disclosure of a specific probe to do so, established Valiante's possession of the amino acid sequence of p38 and a reasonable expectation of success in obtaining a polynucleotide encoding p38.

In the present case, the Examiner has cited a reference where the nucleotide sequence shares 85.1% identity to SEQ ID NO:1 to render the claims obvious. The Examiner states that "[o]ne of ordinary skill in the art would have been motivated to do so because Michaels et al [*sic*] suggest making variant toxins with 75% homology to their protein (column 6, lines 26-67). What the reference actually states is "[t]hese equivalent toxins will have amino acid homology with a toxin of the subject invention. This amino acid homology will typically be greater than 75%, preferably be greater than 90%, and most preferably be greater than 95%." Column 6, lines 33-36. No variant amino acid or nucleotide sequences are disclosed in the '534 patent.

In the present case, in contrast to the *Kubin* facts, the art was not in possession of a monoclonal antibody that can be used to isolate a protein encoded by the claimed nucleotide sequences. The reference does not contain a prophetic example teaching how to isolate one of the claimed nucleotide sequences. Furthermore, none of the teachings in the '534 patent disclose the isolation or construction of a nucleotide sequence falling within the scope of the claims. Furthermore, as the '534 patent does not teach variant sequences, the prior art was not in possession of a protein that would be encoded by a nucleotide of the pending claims. Thus, the facts of the present case are not on point with *Kubin* and the rejection should be withdrawn.

Accordingly, as the Examiner has failed to make a prima facie case of obviousness, the rejection of the claims should be withdrawn.

Request for Information

The Examiner has requested information under 37 CFR §1.105. In particular, the Examiner is requesting information on the source of *Bt* strain 1218. In response to the Examiner's inquiries, Applicants do not have any other information on strain 1218 than that disclosed in the present application. The strain was part of a proprietary strain collection and has not been characterized. The Applicants are not aware of the strain being publicly available prior to the filing of provisional application 60/242,838 filed October 24, 2000.

Conclusion

For the reasons presented above, it is believed that the claims are now in condition for allowance. Early notice to this effect is solicited. If in the opinion of the Examiner a telephone conference would expedite the prosecution of the above-referenced application, the Examiner is invited to call the undersigned.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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